ō

10

15

20

25

30

What is claimed is:

- 1. a wiping cloth made of nonwoven fabric produced by using splittable conjugate fibers—each of which is formed by sticking a polyester polymer component A containing polyoxyalkyleneglycol of 2000 to 20000 in mass average molecular weight and a polyolefin polymer component B which is insoluble in said polymer component A, accumulating fibers A composed of said polymer component A and fibers B composed of said polymer component B formed by exfoliating the sticking of the splittable conjugate fibers, and modifying exfoliated faces of said fibers A and said fibers B by plasma treatment.
- 2. A wiping cloth made of nonwoven fabric produced by using splittable conjugate fibers each of which is formed by sticking a polyester polymer component A containing polyoxyalkyleneglycol of 2000 to 20000 in mass average molecular weight and a polyolefin polymer component B which is insoluble in said polymer component A, and on each surface of which at least a part of said polymer component B is exposed, comprising heat-bonded areas and areas not heat bonded, wherein in said heat-bonded areas, said splittable conjugate fibers are accumulated and combined with each other by heat bonding of said polymer component B, and in said areas not heat bonded, fibers A composed of said polymer component A and fibers B composed of said polymer component B formed by exfoliating the sticking of the splittable conjugate fibers are accumulated, and exfoliated faces of said fibers A and said fibers B are modified by plasma treatment.
- 3. The wiping cloth made of nonwoven fabric according to claim 1 or claim 2, wherein a component containing 1.5 to 15 mass percent polyoxyalkyleneglycol of 2000 to 20000

5

10

15

20

25

30

in mass average molecular weight is used as the polyester polymer component A.

- 4. The wiping cloth made of nonwoven fabric according to claim 2 or claim 3, wherein the fibers A and the fibers B are not substantially entangled three-dimensionally with each other.
- 5. The wiping cloth made of nonwoven fabric according to any one of claims 1 to 3, wherein the fibers A and the fibers B are substantially entangled three-dimensionally with each other.
- 6. The wiping cloth made of nonwoven fabric according to any of claims 1 to 5, wherein the fibers A and the fibers B are continuous fibers.
- 7. A method for manufacturing a wiping cloth made of nonwoven fabric comprising the steps of: applying splitting to a nonwoven web produced by accumulating splittable conjugate fibers each of which is formed by sticking a Α containing polyester polymer component polyoxyalkyleneglycol of 2000 to 20000 in mass average molecular weight and a polyolefin polymer component B which is insoluble in said polymer component A, thereby forming fibers A composed of said polymer component A and fibers B composed of said polymer component B; and modifying exfoliated faces of the fibers A and the fibers B by applying plasma treatment using an inert gas.
- 8. A method for manufacturing a wiping cloth made of nonwoven fabric comprising the steps of: forming a nonwoven web by accumulating splittable conjugate fibers each of which is formed by sticking a polyester polymer component A containing polyoxyalkyleneglycol of 2000 to 2000 in mass

. . . .

5

10

15

20

30

average molecular weight and a polyolefin polymer component B which is insoluble in said polymer component A and exposing at least a part of the polymer component B on the surface thereof; forming a nonwoven fleece by partly heating said nonwoven web to soften or melt said polymer component B thereby forming heat-bonded areas where said splittable conjugate fibers are heat bonded with each other and areas not heat bonded where said splittable conjugate fibers are not heat bonded with each other; applying splitting to said nonwoven fleece to exfoliate the sticking of said splittable conjugate fibers thereby forming fibers A composed of said polymer component A and fibers B composed of said polymer component B in said areas not heat bonded; and applying plasma treatment using an inert gas to modify exfoliated faces of the fibers A and the fibers B.

- 9. The method for manufacturing a wiping cloth made of nonwoven fabric according to claim 7 or 8, wherein a component containing 1.5 to 15 mass percent polyoxyalkyleneglycol of 2000 to 20000 in mass average molecular weight is used as the polyester polymer component A
- 10. The method for manufacturing a wiping cloth made of nonwoven fabric according to claim 8 or 9, wherein the splitting is carried out by buckling treatment.
- 25 11. The method for manufacturing a wiping cloth made of nonwoven fabric according to any of claims 7 to 9, wherein water needling or needle punching carries out the splitting.
  - 12. The method for manufacturing a wiping cloth made of nonwoven fabric according to any of claims 7 to 11, wherein the splittable conjugate fibers are splittable conjugate

5

continuous fibers.

13. The method for manufacturing a wiping cloth made of nonwoven fabric according to any of claims 7 to 12, wherein low-temperature plasma treatment is applied using argon as the inert gas.